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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,514

05/01/2006

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124639

2015

25944 7590 10/16/2008  
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EXAMINER

O HERN, BRENT T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,514	<b>Applicant(s)</b> MASUKAWA ET AL.	
	<b>Examiner</b> Brent T. O'Hern	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/8/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group I, the honeycomb structure, in the reply filed on 11 August 2008 is acknowledged. The traversal is on the ground(s) that there is no serious burden to search claims directed to the method. This is not found persuasive because as stated in the restriction requirement the inventions do not relate to a single general inventive concept and they lack the same or corresponding special technical feature.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 10-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yoshida (JP 2002085922).

Yoshida ('922) teaches a honeycomb structure comprising a plurality of honeycomb segments partitioned by partition walls and having a plurality of circulation holes

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penetrating in one axial direction; and a bonding layer existing between the adjacent honeycomb segments for bonding the plurality of honeycomb segments, wherein the bonding layer is formed by use of a bonding material including oxide fibers, inorganic particles; and a colloidal oxide with the fibers satisfying the following relational expressions (1)/(2),

$$0.5 \text{ (0.6)} \leq L \times (W/D)/100 \leq 8 \text{ (11)} \quad (1)/(2)$$

in which L is an average length ( $\mu\text{m}$ ) of the oxide fibers in a longitudinal direction in a range from 10 to 100  $\mu\text{m}$ , D is specific gravity ( $\text{g/cm}^3$ ) of the oxide fibers, and W is mass percentage of content (% by mass) of the oxide fibers in the entire bonding material/(the bonding material), and an average diameter d in a cross-section perpendicular to the longitudinal direction is set in a range from 1 to 20  $\mu\text{m}$ , wherein mass percentage of the oxide fibers having a shape defined as  $0.5 \leq (\text{a diameter of a cross section perpendicular to the longitudinal direction})/(\text{a length in the longitudinal direction}) \leq 1$  is set equal to or below 50% by mass in the oxide fibers, and the W is set in a range from 10% to 50% by mass, with a plurality of honeycomb segments partitioned by partition walls and having a plurality of circulation holes penetrating in one axial direction; and a bonding layer existing between the adjacent honeycomb segments for bonding the plurality of honeycomb segments, wherein the honeycomb segment comprises any of silicon carbide and a silicon-silicon carbide compound material as a main ingredient (*See paras. 16, 30, 44-60, 89 and Drawing #1, ceramic structure #10, with sealant #13a and porous member #20.*) and inherently teaches a heat conductivity of the bonding layer being in a range from 0.1 to 5 W/mK since the composition is the same. In the alternative, a person having ordinary skill in the art would obviously appreciate or provide a bonding layer with the above heat

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conductivity in order to provide effective heat transfer without deterioration of the bonding strength. Thus, a rejection under 35 USC 102/103 is proper (*See MPEP 2112.*).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BTO/

Brent T O'Hern  
Examiner, Art Unit 1794  
October 6, 2008

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1794